

CENTRAL INTELLIGENCE AGENCY

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COUNTRY East Germany

REPORT

SUBJECT Air Transport School, AN-2 Squadron

DATE OF REPORT 17 March 1958

Brandenburg-Briest re. officers, flight  
activity, radio buttons

PLACE ACQUIRED

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LAST REPORT ON SUBJECT  
(if applicable)

ANNEXES 3-photostat 25X1

2 sketches

No. of Pages: 12

## PROCESSING COPY

[redacted] 25X1  
[redacted] air transport school in Dessau and the subordinate  
AN-2 squadron in Brandenburg-Briest:1. Subordination [redacted] 25X1

Hq NVA/L and Air Defense	in Strausberg-North
Air transport school	in Dessau
AN-2 squadron	in Brandenburg-Briest

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2. Strength and Organisation

The authorized and actual strength of the entire air transport school was not known. The AN-2 squadron and the units of the rear service had the following actual strength on 31 July 1957:

## a. Personnel strength:

AN-2 squadron	19 officers
	10 NCOs
	3 EM
	35 officer candidates

## Guard company

2 officers
6 NCOs
70 EM (newly enrolled)

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Motor vehicle company	4 officers 9 NCOs 16 EM
Medical station	1 officer 2 EM
Meteorological station	2 officers

## b. Aircraft strength:

14 AN-2

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## c. Organization:

The AN-2 squadron was composed of the staff and 2 flights.

## Staff:

squadron commander  
chief of staff  
political officer  
chief of flight training  
signal chief  
administrative officer  
chief of classified material  
section

## Each flight had:

1 flight commander  
3 flight instructors  
officer candidates  
technical personnel

## The 1st flight had:

18 officer candidates  
4 technicians including 2 officers  
4 mechanics

## The 2nd flight had:

17 officer candidates  
4 technicians including  
1 technical sergeant  
4 mechanics

Both flights had one master sergeant.

The guard company was subdivided into 3 platoons, each platoon consisting of 3 squads. The motor vehicle company was not subdivided into platoons due to the low personnel strength. It was scheduled to be filled up by personnel transferred from the guard company.

The technical personnel, presumably assigned to the staff of the squadron, included: the squadron senior engineer  
his deputy  
the engineer responsible for instruments and radio  
the engineer responsible for engines and airframes

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**3. Officers****Air transport school:**

Commander of school	Major	Weise (fnu)
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**AN-2 squadron:**

Commander of squadron	First Lieutenant	Poetsch (fnu)
Chief of flight training	First Lieutenant	Neumann (fnu)
Political officer	First Lieutenant	Thamm (fnu)
Liaison officer to State Security Service (Staats-sicherheitsdienst) (SSD)	Captain	Senftenberg (fnu)
Signal officer	First Lieutenant	Draxdorf (fnu)
Chief of staff	Lieutenant	Bischoff (fnu)
Senior engineer of squadron	Captain	Vogt (fnu)
Flight commanders	Captain	Brate (fnu)
	First Lieutenant	Winter (fnu)
Flight instructors of 2nd flight	First Lieutenant	Grosse (fnu)
	Lieutenant	Brandt (fnu)
	Lieutenant	Schwabe (fnu)

**Guard Company:**

Company commander	Captain	Prell (fnu)
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No Soviet advisors were assigned to the AN-2 squadron.

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**4. Equipment****a. Weapons and ammunition:**

AN-2 squadron: all soldiers armed with OS and/or TT-33 pistols; 2 light machine guns

Guard company: all soldiers armed with submachine guns when on duty

Motor vehicle company: all soldiers armed with 44-type carbines when on duty

An alert set of small arms was stored in the armories of the individual units. Additional ammunition was stored in an ammunition bunker south of the housing area on the southern edge of the field.

Minor repairs on arms were done in the arms workshop of the guard company; major repairs were carried out in the central arms workshop of the NVA/L in Kamenz.

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## b. Motor vehicles:

The motor vehicles were furnished by the motor vehicle company. The following vehicles were available in the motor vehicle park:

Sedans	1 BMW
Trucks	6 H-3-As
	5 Phaenomen K-30
	3 G-5s
Special vehicles	2 mobile flight control stations (Start-Kontroll-Punkt) (SKP), delivered by Ammendorf car-construction plant near Halle
	1 RAS VHF station
	4 tank trucks for fuel and oil
	1 fire truck with foam extinguisher
	1 H-6 workshop truck with 2-wheel trailer with generator
	2 caterpillar tractors
	1 snowplow
	1 compressed air station

Small repairs were done in the motor vehicle workshops, major repairs were generally carried out in the central motor vehicle workshop in Kamenz and, in individual cases, in private motor vehicle workshops in Brandenburg.

## c. Signal equipment:

Ground radio stations: 1 RAS  
2 SKPs with RSIM-3-M station  
2 radio beacons  
1 Kniferest

## Aircraft radio stations:

## RSIU-3-M:

frequency range:	100-150 Mc
range with RAS (VHF ground station):	about 120 km at flight altitude of 1.000 meters about 160 km at flight altitude of 2.000 meters
range air-to-air:	up to 120 km at an altitude of 500 meters
antenna output:	6 watt
temperature:	$\pm 60^{\circ}$ i.e. operation is possible at temperature from - 60 to + 60 $^{\circ}$
humidity of the air:	98 %
operation:	A-3 (telephony)
receiver:	13 tubes, type unknown
sender :	8 tubes, type unknown
working method:	2 minutes of transmission, 2 minutes silent

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channels:

- channel 1 -ground-to-air communication
- channel 2 -air-to-air communication
- channel 3 -auxiliary radio traffic  
and traffic with Soviet  
radio stations
- channel 4 - emergency call

MRP-8 radio beacon receiver:

It receives only specific frequencies, gives optical and acoustic signals, and is equipped with a bell and red control lamp on the instrument panel.

2 ARK-5 radio full compasses for each aircraft: No details available.

RW-2 radio altimeter: No details available.

MRP-48P marker receiving station: No details available.

RSB-5 short-wave station:

Range: 3,000 km at most,  
100 % performance at 10 km,  
considerable <sup>100%</sup> output at large  
distances

Weight: 57.5 kg

Antenna: L or T antenna, 4.5 - 18 meters long

Method of operation: continued transmission for 300 minutes;  
subsequently, transmission for 5  
minutes and 10-minute interval

Short wave range: 2.15 - 20 Mc

Antenna power: 35 - 120 watt, during radiotelephony  
at least 20 %

Other radio sets with unidentified type designations and method of operation were installed in the AF-2.

d. Optical instruments:

binoculars

e. Protective devices against ABC warfare:

Not available in the squadron

5. Flying Training

Flying duty was carried out according to the air activity regulation (Flugbetriebsordnung) (FBO) based on the Soviet regulations. On the day preceding air service, the following

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flight preparations were made:

a. Maps :

Studying of DF chart at a scale of 1:2 million or 1:2.5 million. Marking on chart of radio reference lines and predetermined bearing i.e. bearing at a specific point on the flight leg. Studying of grid net chart, scale 1:500,000, always available in the aircraft.

b. Navigational flight preparation:

Navigational equipment of the aircraft and pilot were checked and prepared.

Navigational equipment of aircraft:

Magnetic compass  
radio half compass  
radio full compass  
DIK (electromagnetic compass)  
curve compass  
speedometer  
altimeter, barometric and electric  
instrument board watch  
outside thermometer  
rangefinder indicating the distance to a specific radio station

Navigational equipment of pilot:

slide rule  
writing paper  
pencil  
colored pencils  
tactical ruler  
course triangle  
dividers  
map case  
pocket compass

The maps required for the route were selected by the navigation officer who together with the pilot studied the air route, marked their course of flight on the map and found out about the reserve and emergency airfields and their landing conditions as well as the prospective weather condition 200 km to the right and left of the air route.

Flight preparation also included:

flight calculations  
procuring of details on means of terrestrial navigation based on radio and light technique available on the air route  
requesting of landing conditions of the airfields located on the air route

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Navigational radio equipment: radio beacons  
 DF stations  
 radar stations  
 beacons  
 transmitter of localizer beacons

Navigational light equipment: searchlights  
 lights on the airfield

c. Preparations for take-off:

Half an hour before the beginning of air activity, the flying students assembled in the so-called "Aufenthaltsquadrat" a small place close to the aircraft dispersal area where they were asked questions about their reaction in dangerous flight situations, frequencies and radio beacons on the course of flight, location of neighboring airfields and their landing conditions, prominent landmarks on the individual routes, and possibly about their specific flight missions. Afterward, the flying students again lined up and received final instructions on their missions by the flight leader, mostly the commander or the navigation officer. At first, the navigation officer announced the correct time and all students had to set their watches. Then, the meteorological officer gave a survey on the general weather situation and informed the individual students on the weather condition on their specific flight route. Thereafter, the flying students filled in their aircraft log-books, again studied their air route, and made calculations on "Flugregime" possibly flight data, according to the forecast on high-altitude wind.<sup>3</sup> Subsequently, the pilot took over the aircraft and signed it in the log-book of the technician. The pilots again checked all important devices and installations. Then the flying student started the engine and awaited the order to taxi to the line in front of the take-off point.

d. Flights:

The AN-2 squadron mainly made long-distance and instrument flights. It was determined in an aircraft log-book that the distance between Brandenburg and Kyritz which is 62 km long was flown. The navigational data calculated beforehand were entered in the individual columns. A flying time of 21 minutes was calculated based on a cruising speed of 180 km/h. After crossing over Kyritz, the student had to make a blind flight oriented by control points, namely the radio beacons at Schoenefeld and Brandenburg-Briest; the radio reference lines were drawn and the position was determined from the points of intersection. The following abbreviations were used in the individual columns of the aircraft log-book:

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MWW intended magnetic angle of route  
 MK magnetic course = MWW minus drift angle ( $\pm$  AW)  
 Yw actual speed  
 S route  
 W cruising speed  
 t time  
 Pk boost ratio  
 Q external pressure  
 NEM name of station  
 MPF magnetic bearing to aircraft  
 KWF course angle to aircraft (magnetic course + MPF)  
 GPF geographic bearing to aircraft

e. OSP landing procedure:

The take-off was made when the curve compass indicated  $0^\circ$  and the geographical angle was  $90^\circ$ . When crossing over the radio beacon, the compass rotated by  $180^\circ$ . At an altitude of 150 meters, a left turn was made by  $90^\circ$ , then followed straight flying for 1.5 minutes, thereafter a left turn by  $90^\circ$  on the opposite landing course. Flying was continued until the radio beacon was abeam. When the radio compass (ARK) indicated  $270^\circ$ , flying continued for another 3 minutes before a left turn of  $90^\circ$  was made. When ARK showed  $280^\circ$ , the aircraft curved into the landing course. After the fourth turn, the landing course indicator had to show  $270^\circ$  and ARK  $0^\circ$ . During instrument flying, the OSP landing procedure was also performed following the "standard turn"; when making this turn, the aircraft crossed over the radio beacon on the opposite landing course and at KWF  $0^\circ$ . Then, a right turn was made at  $80^\circ$  while the aircraft banked by  $15^\circ$  flying at any chosen speed. As soon as the magnetic course was  $80^\circ$ , a left turn was made at  $260^\circ$  and attention had to be paid to the fact that the course and KWF changed in equal proportion. When KWF was  $0^\circ$  and the landing course  $180^\circ$ , the landing was started according to the OSP procedure.

f. Radio base lines:

The radio base lines from  $0^\circ$  to  $360^\circ$  were marked on the navigational chart every 10 degrees. When a flying aircraft started radio communication with an airfield and the radio compass was switched on, the latter indicated the number of degrees to the airfield. Subsequently, the aircraft could fly to a new position line having regard to the following details: if the new position line was larger than the old one, a left turn was flown and  $90^\circ$  were deducted from the new position line; if the new position line was smaller than the old one, a right turn was made and  $90^\circ$  were added to the new position line. When departing from the radio beacon, the following facts had to be considered:

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if the new position line was larger than the old one, a right turn had to be flown and 90° had to be added to the new position line; if the new line was smaller than the old one, a left turn had to be flown and 90° were deducted.

#### 6. Radio Beacons

The frequencies and identification signals of the following radio beacons were determined:

Brandenburg-Briest	430 KC/S	dk
Dessau	640 "	mr
Koethen	350 "	mz
Merseburg	300 "	?
Leipzig	557 "	?
Dresden	1,040 "	?
Bernburg	1,196 "	?

#### 7. Air Traffic Control

With regard to international air traffic, the air traffic control instructions had to be followed with particular attention during all flights from Brandenburg-Briest airfield. On the air route, the following reports had to be transmitted by radio:

- a. When entering and leaving the local area: Report on take-off and landing.
- b. When taking off: Report to the dispatcher of the air district - the air corridor between Berlin and West Germany is subdivided into so-called air districts - on the exact time when the aircraft will fly into the air district, altitude of flight and flight conditions. The same report was also transmitted to the airfield dispatcher.
- c. When changing the flying altitude: Report to the district dispatcher when beginning to change the altitude and when reaching the normal altitude.
- d. When crossing over control points: Report to radio location and command stations on the air route. If no such stations were available, the aircraft transmitted position data with graphical co-ordinates and data on the time of crossing, flight altitude and flight conditions.
- e. In case of unusual meteorological conditions such as thunderstorm, icing, hail, etc.: Report to the district dispatcher concerning density, strength, direction and movement of unusual weather.

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- f. When crossing air routes: Report to the district dispatcher 10-15 minutes before crossing giving data on time, altitude and flight conditions.
- g. When crossing a neighboring air control district: Report to the competent district dispatcher 10 - 15 minutes before crossing giving exact position data.

The NVA/L flying students involved in air duty were informed that the following installations were used for air traffic control:

VHF radio telephony  
 radio navigation for direction finding on board  
 localizer beam transmitter, flight control  
 landing installations  
 wire communication installations for ground-to-air DF

#### 8. Theoretical Instruction

The personnel of the AN-2 squadron received so-called ground training on those days when no air activity was held. Instruction in navigation was mainly given including:

calculating with navigational instruments  
 figuring out of gliding angle, altitudes of safety zones,  
 flying times and air routes.  
 studying of flight areas  
 drawing of navigational charts

In addition, the students were engaged in sport, aerodynamics, technical instruction, meteorological instruction, and political indoctrination.

Political indoctrination was held according to the NVA/L training plan by order of the air transport school in Dessau. Sport activity included gymnastic exercises with poles etc, light athletics, etc.

Instruction on aerodynamics was limited to a few hours during the training course dealing with the laws of air flows and their influences on various aircraft profiles.

Technical instruction which ranked second after navigational instruction included the technical data and characteristics of the AN-2, maintenance of the aircraft, radio and special devices installed in the aircraft.

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Meteorological instruction was held very seldom. In the beginning of the training course, the students were given a general introduction into meteorology and the organization of the meteorological service. Later on, about once a month, the meteorologist explained the weather charts of the preceding weeks showing the development of the weather conditions. During the period of observation, the AN-2 squadron did not receive instruction on tactics, aircraft recognition service, parachuting, firing with pistols or submachine guns, protective measures against ABC warfare, and air medical service.

9. Age Classes

The officer candidates of the squadron belonged to the following age classes:

60 % of the 1937 class  
30 % of the 1936 class  
10 % of older age groups

10. Political Reliability and Mood Among Personnel

About 90 % of the officers and 10% of the officer candidates were SED members. There were no convinced communists among the students. Comradship among the personnel of the squadron was good. Informers were not determined. The officer candidates were in low spirits since all of them had wished to become fighter pilots and were transferred to the air transport school against their will. The relationship between cadre officers and officer candidates was tolerable.

1. [redacted]
2. [redacted] Comment. First Lieutenants Poetsch and Neumann and Lieutenants Bischoff, Brandt and Schwabe are reported for the first time.
3. [redacted] Comment. "Regime" stands for output of power plant;  
Start-Regime = full output  
Flug -Regime = cruising output
4. [redacted]
5. [redacted] Comment. For [redacted] sketch of landing procedure, see Annex 2.
6. [redacted] Comment. For sketch of old and new position lines, see Annex 3.

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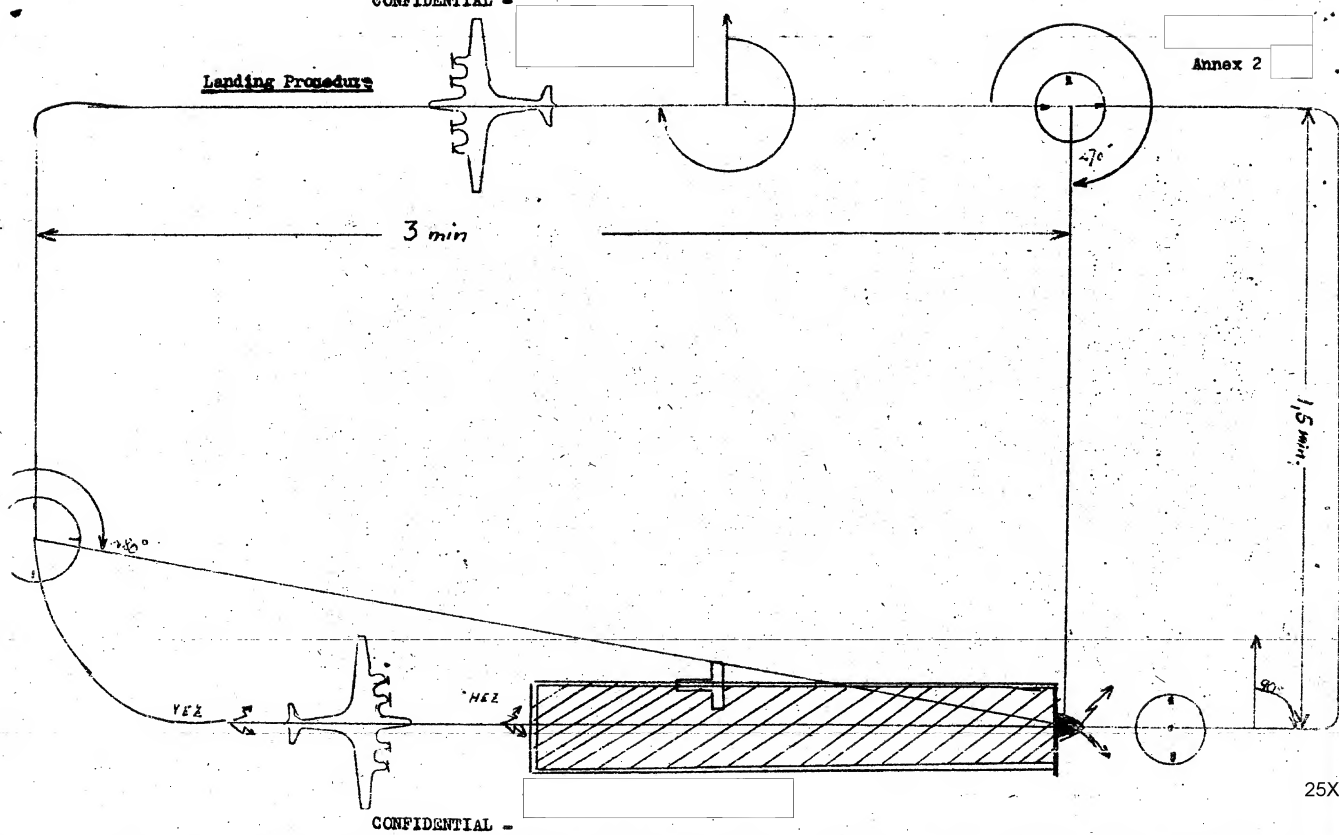
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Annex 2 [redacted]



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Annex B

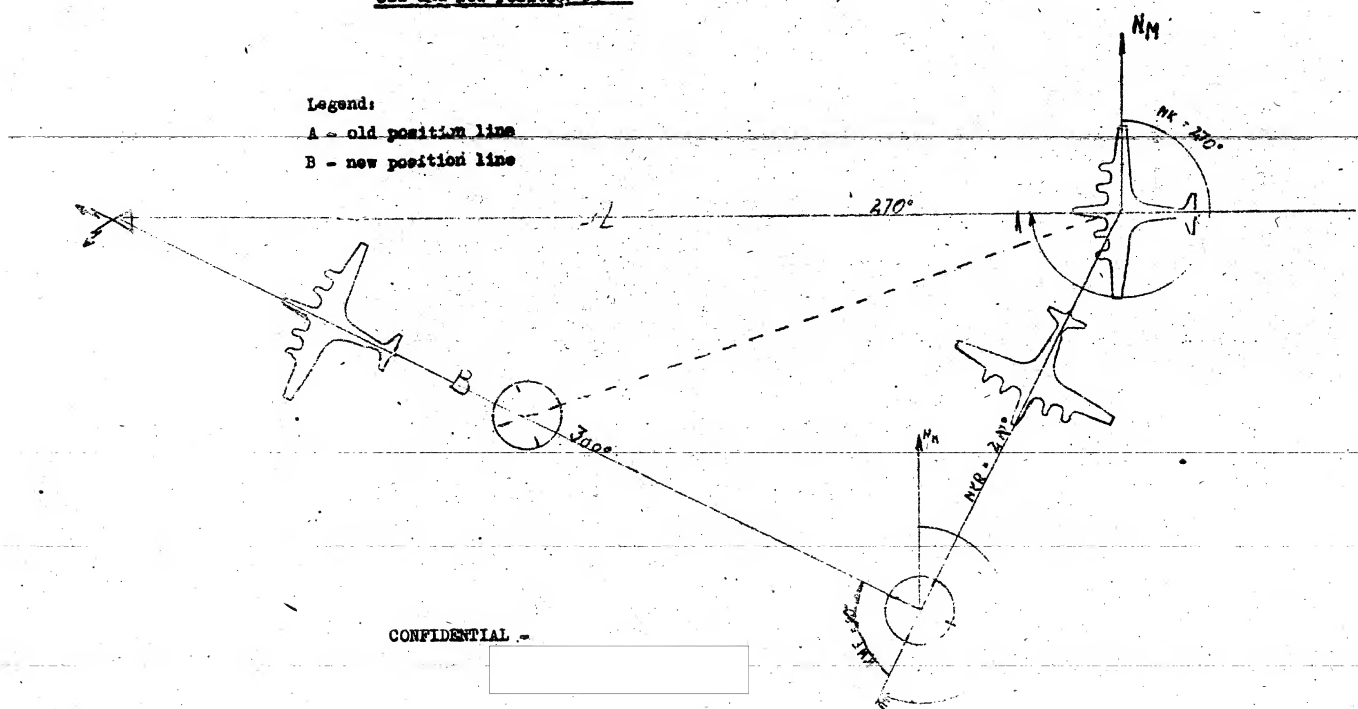
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Old and New Position Lines

Legend:

A - old position line

B - new position line



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